

What is claimed is:

1. A silencer comprising:

- (a) first and second body sections spaced from each other to define a gas flow path therebetween;
 - (i) the first body section including a base, sidewall, and an upper wall;
 - (A) the upper wall having a center region with a concave wall smoothly sloping downwardly terminating at the sidewall;
 - (B) the base, sidewall, and upper wall together forming a first body section interior volume;
 - (C) a first region of packing material being within the interior volume and pressed against the base, sidewall, and upper wall;
 - (ii) the second body section having a second body section base, outer sidewall, inner sidewall, and upper wall;
 - (A) the second body section base, outer sidewall, inner sidewall, and upper wall together defining a second body section interior volume;
 - (B) the second body section having a center aperture;
 - (1) the inner sidewall lining the center aperture;
 - (C) a second region of packing material being within the second body section interior volume;
 - (D) the upper wall center region of the first body section projecting into the center aperture of the second body section; and
- (b) the upper wall of the first body section and the second body section inner sidewall and the second body section base together define the gas flow path.

2. A silencer according to claim 1 further comprising:

- (a) a frame arrangement including an outer tubular housing with an inner volume;
 - (i) the second body section being secured to the frame arrangement with the outer tubular housing extending through the second body section center aperture;
 - (ii) the first body section being oriented relative to the frame arrangement such that the center region of the upper wall extends into the inner volume of the outer tubular housing.

- 3. A silencer according to claim 1 wherein:
 - (a) each of the first body section and second body section comprises steel.

- 4. A silencer for a gas turbine air intake system; the silencer comprising:
 - (a) a first body section including a base, sidewall, and an upper wall;
 - (i) the upper wall having a center region with a concave wall smoothly sloping downwardly terminating at the sidewall;
 - (ii) the sidewall joining together the base and the upper wall;
 - (iii) the base, sidewall, and upper wall together forming a first body section interior volume;
 - (iv) a first region of packing material being within the interior volume and pressed against the base, sidewall, and upper wall;
 - (v) the base, sidewall, and upper wall comprising steel;
 - (b) a second body section having a second body section base, outer sidewall, inner sidewall, and upper wall;
 - (i) the second body section base, outer sidewall, inner sidewall, and upper wall together defining a second body section interior volume;
 - (ii) the second body section having a center aperture;
 - (A) the inner sidewall lining the center aperture;
 - (iii) a second region of packing material being within the second body section interior volume;

- (c) a frame arrangement including an outer tubular housing with an inner volume;
 - (i) the second body section being secured to the frame arrangement with the outer tubular housing extending through the second body section center aperture;
 - (ii) the first body section being oriented relative to the frame arrangement such that the center region of the upper wall extends into the inner volume of the outer tubular housing; and
 - (iii) the upper wall of the first body section and the second body section inner sidewall and the second body section base together defining a gas flow path from the inner volume of the tubular housing.
- 5. A silencer according to claim 4 wherein:
 - (a) the first region of packing material is contained within a protective film; and
 - (b) the second region of packing material is contained within a protective film.
- 6. A silencer according to claim 5 further comprising:
 - (a) a fan supported by the center region of the upper wall; the fan being within the inner volume of the tubular housing.
- 7. A silencer according to claim 6 further comprising:
 - (a) a hopper includes a plurality of chambers surrounding the fan; the chambers having a region of packing material therein.
- 8. A gas turbine air intake system comprising:
 - (a) a frame;
 - (b) a plurality of filter elements supported by the frame; the filter elements having an upstream portion and a downstream portion;

- (i) the upstream portion of the filter elements being located in a dirty air plenum, and the downstream portion of the filter elements being located in a clean air plenum;
 - (c) a reverse-pulse cleaning system oriented to periodically direct pressurized fluid into the filter elements through the downstream portion;
 - (d) a fan arrangement in gas flow communication with the dirty air plenum; and
 - (e) a silencer arrangement supported by the frame and in gas flow communication with the fan arrangement;
 - (i) the silencer arrangement including first and second body sections spaced from each other to define a gas flow path therebetween.
9. A gas turbine air intake system according to claim 8 further including:
- (a) a hopper arrangement between the fan arrangement and the silencer arrangement.
10. A gas turbine air intake system according to claim 9 wherein:
- (a) the first body section includes a base, sidewall, and an upper wall;
 - (i) the upper wall having a center region with a concave wall smoothly sloping downwardly terminating at the sidewall;
 - (ii) the base, sidewall, and upper wall together forming a first body section interior volume;
 - (iii) a first region of packing material being within the interior volume and pressed against the base, sidewall, and upper wall;
 - (b) the second body section has a second body section base, outer sidewall, inner sidewall, and upper wall;
 - (i) the second body section base, outer sidewall, inner sidewall, and upper wall together defining a second body section interior volume;
 - (ii) the second body section having a center aperture;
 - (A) the inner sidewall lining the center aperture;

- (iii) a second region of packing material being within the second body section interior volume;
 - (iv) the upper wall center region of the first body section projecting into the center aperture of the second body section; and
 - (c) the upper wall of the first body section and the second body section inner sidewall and the second body section base together define the gas flow path.
11. A gas turbine air intake system according to claim 10 wherein:
- (a) the silencer arrangement permits gas flow in first and second conditions;
 - (i) in a first condition, gas flows from the dirty air plenum, through the silencer arrangement, and to external atmosphere; and
 - (ii) in a second condition, gas flows from external atmosphere, through the silencer arrangement, and to the dirty air plenum.
12. A gas turbine air intake system according to claim 10 wherein:
- (a) the hopper arrangement includes a plurality of chambers surrounding the fan arrangement; the chambers having a region of packing material therein.
13. A gas turbine air intake system according to claim 12 wherein:
- (a) said hopper arrangement includes a plurality of hoppers supported by the frame, the hoppers being located below one or more columns of filter elements;
 - (b) said fan arrangement includes a plurality of fans, one fan corresponding to each hopper; and
 - (c) said silencer arrangement includes a plurality of silencers; one silencer corresponding to each fan.
14. A method of attenuating noise from a gas turbine air intake system; the method comprising:

- (a) directing air from a dirty air plenum of a gas turbine air intake system through an air flow path defined by first and second body sections;
 - (i) the first body section including a base, sidewall, and an upper wall;
 - (A) the upper wall having a center region with a concave wall smoothly sloping downwardly terminating at the sidewall;
 - (B) the base, sidewall, and upper wall together forming a first body section interior volume;
 - (C) a first region of packing material being within the interior volume and pressed against the base, sidewall, and upper wall;
 - (ii) the second body section having a second body section base, outer sidewall, inner sidewall, and upper wall;
 - (A) the second body section base, outer sidewall, inner sidewall, and upper wall together defining a second body section interior volume;
 - (B) the second body section having a center aperture;
 - (1) the inner sidewall lining the center aperture;
 - (C) a second region of packing material being within the second body section interior volume;
 - (D) the upper wall center region of the first body section projecting into the center aperture of the second body section; and
 - (iii) the upper wall of the first body section and the second body section inner sidewall and the second body section base together define the air flow path.